

# DOTAN DI CASTRO

dotan.dicastro@gmail.com • +972(052)8312220 • August 2025

## SUMMARY

---

**Current Role:** Head of Autonomous at [ForSight Robotics](#), Cesare, Israel.

**Expertise:** AI R&D Managing, Phd in Reinforcement Learning and AI, [Robotist](#), and [AI Expert](#);

**Academics:** ~ 2100 **citations** (~ 50 Journal and Conference papers in NeurIPS, ICML, ICRA, IROS, JMLR, RAL, CoRL, RSS, WACV, RADAR, SIGKDD, ICDMW, CDC, etc.);

**IP:** ~ 52 Patents in US, DE/EU, JP;

**Community Service:** (1) AC and Reviewer in AI leading conferences (NeurIPS, ICML, ICLR, AISTATS, etc.); (2) AI Workshops Organizers ([RSS23](#), [XAI23](#))

**Linkedin:** <https://www.linkedin.com/in/dotan-di-castro-b0a99039/>

**Github:** <https://github.com/dotd>

**Google Scholar:**<https://scholar.google.co.il/citations?user=zhQaFaMAAAAJ&hl=en>

## ABOUT

---

I am an **AI expert**, specializing in **Reinforcement Learning, Robotics, Time Series** and **Computer Vision**. My main interests are building **autonomous systems** whether virtual or real (e.g., **manipulation robotics**) in the high and low tech industries. I like to **apply AI to solve real problems** as an **individual contributor** as well as a **manager**.

## WORK EXPERIENCE

---

**ForSight Robotics: Head of Autonomous** Decemebr 2025 - Today  
I'm managing a group of scientist that transform a human operated sophisticated robot to autonomous one.

**Bosch AI Research: Head of Robotics Lab** 2018 - 2025  
Founded the Israeli research organization for Bosch AI organic research in Israel. Responsible for research and IP agenda and guided a group of 15 research scientists, engineers, and 10 interns.  
- The lab objectives were to do impact on Bosch products, doing cutting edge research, and building IP Stack.  
- Notable projects includes RL for Autonomous Dozer (BGE), Smart Item Picking using robotic arms (Bosch Rexroth), Scheduling using RL, Robotic assembly, Video predictions for 2WP/4WP, Battery Optimization (B-PS), and more.

**Senior Research Scientist, Yahoo! Labs, Haifa, Israel** 2013 - 2018  
Working mainly in Yahoo Mail and Ads products. Technical lead of Automatic Extraction.

**CTO Modana (Startup)** 2012 - 2013  
Role: Modana developed a context aware product for mobile sensing using the smartphone.

**Research Scientist, Pulsar Investments Inc.** 2009 - 2012  
Role: Research scientist in an algorithmic trading startup. Main market: CME.

**IBM Research** 2000 - 2004  
Student Apprentice

## EDUCATION

---

**Postdoc in EE, Technion, Israel** 2010 - 2011  
Host: Prof. Shie Mannor

**PhD in EE, Technion, Israel** 2006 - 2010  
Thesis: *Aspects of Actor-Critic Algorithms: Theory and Experiments*. Advisor: Prof. Ron Meir

**MSc in EE, Technion, Israel** 2004 - 2006  
Thesis: *Population Behavior of Neural Networks*. Advisor: Prof. Ron Meir

**BSc in EE, Technion, Israel** 2004 - 2006  
*Cum Laude*

## TECHNICAL SKILLS

---

- Languages (Proficient and handson): Python, Java, Scala
- Deep Learning frameworks: PyTorch, Keras
- Big Data frameworks: Spark, Hadoop, Docker, Kubernetes

1. L. Nochumsohn, M. Moshkovitz, O. Avner, D. Di Castro, O. Azencot. Beyond data scarcity: A frequency-driven framework for zero-shot forecasting arXiv:2411.15743, 2024
2. O. Spector, V. Tchuiev, D. Di Castro. Insertionnet 2.0: Minimal contact multi-step insertion using multimodal multiview sensory input. In *Proc. ICRA*, 2022.
3. Z. Feldman, H. Ziesche, N.A. Vien, D. Di Castro. A hybrid approach for learning to shift and grasp with elaborate motion primitives. In *Proc. ICRA*, 2022.
4. O. Spector, D. Di Castro. Insertionnet—a scalable solution for insertion. *IEEE Robot. Autom. Lett.*, 2021.
5. J. Oren, C. Ross, M. Lefarov, F. Richter, A. Taitler, Z. Feldman, D. Di Castro, et al. SOLO: Search online, learn offline for combinatorial optimization problems. In *Proc. SoCS*, 2021.
6. S.D.C. Shashua, D. Di Castro, S. Mannor. Sim and Real: Better Together. *arXiv:2110.00445*, 2021.
7. A. Tamar, D. Di Castro, S. Mannor. Learning the variance of the reward-to-go. *JMLR*, 2016.
8. D. Di Castro, L. Lewin-Eytan, Y. Maarek, R. Wolff. Enforcing k-anonymity in web mail. *WSDM*, 2016.
9. N. Avigdor-Elgrabli, D. Di Castro, et al. Structural clustering of machine-generated mail. *CIKM*, 2016.
10. D. Soudry, D. Di Castro, A. Gal, A. Kolodny, S. Kvatinsky. Memristor-based multilayer neural networks with online gradient descent training. *IEEE Trans. Neural Netw. Learn. Syst.*, 2015.
11. A. Hallak, D. Di Castro, S. Mannor. Contextual Markov decision processes. *arXiv:1502.02259*, 2015.
12. A. Hallak, D. Di Castro, S. Mannor. Model selection in Markovian processes. In *ACM SIGKDD*, 2013.
13. A. Tamar, D. Di Castro, S. Mannor. TD methods for the variance of the reward to go. In *ICML*, 2013.
14. D. Di Castro, A. Tamar, S. Mannor. Policy gradients with variance related risk criteria. *ICML*, 2012.
15. D. Di Castro, R. Meir. A convergent online single time scale actor critic algorithm. *JMLR*, 2010.
16. D. Di Castro, D. Volkinshtein, R. Meir. Temporal difference based actor critic learning—convergence and neural implementation. In *Adv. Neural Inf. Process. Syst. (NeurIPS)*, 2008.

SELECTED PATENTS

---

1. D. Di Castro, J. Z. Kolter, M. Moshkovitz, Z. Feng. Improved method and system for generating concept-based explanations for a target model. *US Patent App. 18/808,135*, 2025.
2. O. Spector, D. Di Castro, V. Tchuiev. Device and method for training a machine learning model to derive a movement vector for a robot from image data. *US Patent 12,226,919*, 2025.
3. I. Grabovitch-Zuyev, D. Di Castro, et al. Automatic electronic message content extraction method and apparatus. *US Patent 12,222,973*, 2025.
4. O. Spector, D. Di Castro. Device and method for training a neural network for controlling a robot for an inserting task. *US Patent 12,387,464*, 2025.
5. O. Spector, D. Di Castro, V. Tchuiev. Device and method for controlling a robot to perform a task. *US Patent 12,370,679*, 2025.
6. D. Di Castro, E. Kosman. Lossy compression of video content into a graph representation. *US Patent 12,284,397*, 2025.
7. C. Ross, Y. Miron, Y. Goldfracht, D. Di Castro. Device and Method for Controlling a Robot. *US Patent App. 18/362,311*, 2024.
8. E. Kosman, D. Di Castro, J. Oren. Method for generating a graph structure for training a graph neural network. *US Patent App. 17/812,480*, 2023.
9. O. Spector, D. Di Castro, V. Tchuiev. Device and method for controlling a robot to perform a task. *US Patent App. 18/185,684*, 2023.
10. O. Avner, D. Di Castro, O. Linial. Device and method for training a reinforcement learning system. *US Patent App. 18/882,901*, 2025.
11. A. V. Ngo, H. Ziesche, Z. Feldman, D. Di Castro. Method for controlling a robotic device. *US Patent App. 17/661,041*, 2022.
12. I. Grabovitch-Zuyev, A. Pundir, N. Avigdor-Elgrabli, D. Di Castro, I. Gamzu, et al. Automatic electronic message content extraction method and apparatus. *US Patent 10,977,289*, 2021.
13. A. Taitler, C. Daniel, D. Di Castro, F. M. Richter, J. Oren, M. Lefarov, N. M. Dizbin, et al. Device and method for scheduling a set of jobs for a plurality of machines. *US Patent App. 17/179,702*, 2021.
14. L. Lewin-Eytan, D. Di Castro, E. Zohar, Y. Maarek, R. Wolff, D. Sharp. Enforcing anonymity in the auditing of electronic documents. *US Patent 10,558,822*, 2020.
15. I. Grabovitch, D. Di Castro, U. Patel, I. McCarthy. Computerized system and method for digital content extraction and propagation in HTML messages. *US Patent 10,616,161*, 2020.
16. D. Di Castro, D. Soudry, S. Kvatinsky, A. Gal, A. Kolodny. Analog multiplier using a memristive device and method for implementing Hebbian learning rules using memristor arrays. *US Patent 9,754,203*, 2017.